

Norman H. Bangerter, Governor Dee C. Hansen, Executive Director Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

August 14, 1986

Noon To Noon 9/2/86

CERTIFIED RETURN RECEIPT REQUESTED P402 459 394

Mr. Dan W. Guy Manager, Permitting/Compliance Beaver Creek Coal Company P.O. Box 1378 Price, Utah 84501

Dear Mr Guy:

RE: Conditional Approval, of Conceptual Exploration Road
Stabilization Plan, Wildhorse Ridge Coal Exploration Project,
Beaver Creek Coal Company, CEP/015/007, Carbon County, Utah

The Division has completed the technical review of Beaver Creek Coal Company's proposal received June 16, 1986 for stabilization of the Wildhorse Ridge coal exploration road. On July 17, 1986, Division staff members Susan Linner, Wayne Hedberg, Randy Harden, David Cline and James Leatherwood met with you onsite to discuss the applicability of the stabilization proposal. As a result of that site inspection, review of the latest proposal and an indepth study of the previously approved plans, the Division is prepared to issue a conditional approval for the stabilization proposal with the following stipulations:

## Stipulation UMC 815.15(f) -(1)- JSL

1. Beaver Creek Coal Company must double the two inch ripping depth to a four to six inch depth. The following fertilization recommendations must also be committed to and implemented:

Urea Diammonium phosphate

30 lbs/ac (granular) 40 lbs/ac (granular)

## Stipulation UMC 815.15(f) -(2)- SCL

2. The Road Stabilization Plan indicates that the road surface and downslopes will be hydroseeded and mulched. No rates are given for the application of mulch or tackifier. The operator must commit to apply at least 2000 pounds per acre of mulch and 80 pounds per acre of chemical tackifier.

Page 2 Mr. Dan Guy CEP/015/007 August 14, 1986

## Stipulation UMC 815.15(c)(2)-(3, 4, 5 & 6) - DC

UMC 817.163 requires that Class II road drainage controls safely pass the peak runoff from the lOyr-24hr precipitation event. However, regional data and site conditions indicate that the design flow for a lOyr-6hr storm is more appropriate for the drainage controls of the Wildhorse Ridge exploration road. Therefore, the Division is granting a variance to the lOyr-24hr design requirements for this road only. The following comments are based upon this variance:

The operator has proposed to install another 48-inch culvert along side the present 48 inch culvert in Bear Canyon Creek. The Division calculated a design flow for the 10yr-6hr storm (Farmer-Fletcher) of 298 CFS. Twin 48-inch culverts with (eight) 8 feet of headwall depth above the culvert invert will pass 300 CFS of stream discharge. Therefore, the operator's proposal will meet the minimum requirements.

- 3. If the operator chooses to proceed with the twin 48-inch culvert option, the Division will require that appropriate culvert inlet and outlet channel armoring be implemented and sized to safely handle the peak design flow (minimum 10yr-6hr event), thereby minimizing channel erosion and scour; or
  - (a) As an alternative to proposal under #3 above, remove the culvert in Bear Creek and reestablish the stream channel to a condition which would allow vehicular crossing on a limited basis. At a minimum, the reconstructed channel dimensions would have to reflect the typical undisturbed channel geometry immediately upstream and downstream of the crossing.

Division calculations show that culverts 5 & 6 (36-inch) and 9 & 10 (24-inch) can safely pass the peak l0yr-6hr design flows provided there is 5.2 feet of headwall above the 24-inch culvert inverts and 7.2 feet of headwall above the 36-inch culvert inverts.

- 4. Should the operator elect to leave these four culverts, the Division will require compliance with the specifications outlined in the previous sentence above. Again, the channel must be appropriately armored to control erosion and scour at peak design flows (as in #3 above); or
  - (a) As an alternative to the proposal under #4 above, remove culverts 5, 6, 9 and 10 and restore the stream channel to a capacity as described above under alternative #3 (a).

Page 3 Mr. Dan Guy CEP/015/007 August 14, 1986

(b) A second alternative for culverts 5, 6, 9 and 10, the operator may choose to utilize the extra 24 inch culverts (which will be removed from upper portions of the exploration road) and supplement culverts 5, 6, 9 & 10 which will remain. Based on our site inspection, the current culvert headwall heights are adequate to handle the design storm runoff, if multiple culverts were used.

Analysis of the proposed water bars which will replace the culverts to be removed, shows that the 200 foot spacing on portions of the road exceeding a 10% grade is not technically adequate.

5. The operator must commit to implementing the spacing requirements as outlined in the attached calculations for those sections which exceed 10% grades. The water bars are to armored to minimize erosion as well. Settling basins will be utilized at the entrance to each water bar to dissipate energy and settle sediments.

Analysis of the proposed ditch for the inslope of the road shows that the capacity is adequate to handle the design flow. The Division has not performed a complete analysis of projected flow velocities for the entire length of the road inslope ditch. However, preliminary calculations indicate that the flow velocities are such that channel lining will be required in order to minimize erosion at the design flow.

6. Areas where channel lining will be necessary will depend on calculated flow velocities for given sections of the road inslope drainage ditch. Beaver Creek must compute the velocity calculations for the length of the road ditch and line the appropriate sections where erosive velocities are most likely to occur.

The Division has a series of channel and riprap design references available which could be loaned to you upon request. Appropriately sized durable rock riprap is a preferred material, although other materials are available for lining channels. Some examples may include, synthetic liners, half-round culverts, shotcrete, etc.

Our records indicate that 89 days have expired under the maximum 90 day timeframe for NOV abatement. Therefore, Beaver Creek must provide a written commitment to the conditions as outlined above, or to reclaim in accordance with the original exploration & reclamation plan (approved August 17, 1982 as amended) within one (1) day of receipt.

Page 4 Mr. Dan Guy CEP/015/007 August 14, 1986

Revegetation procedures and seed mix provisions as outlined in the June 12, 1986 stabilization plan should be followed if total reclamation occurs. In either scenario (Class II stabilization or total reclamation), full field implementation must be completed no later that October 15, 1986.

Acceptance of either scenario by BCCC will also constitute formal withdrawal of the Wildhorse Ridge MRP permit application on file with the Division. Upon notice of completion of the stabilization or reclamation activities, the Division will perform an onsite inspection to confirm compliance with the approved plans. Pending a satisfactory inspection, Beaver Creek will be released from further obligations on the Wildhorse Ridge exploration road. The road will then be turned back to Nevada Electric Investment Company as per the approved postmining land use.

To aid in receipt of a timely response, a signature block has been added to the bottom of this letter for your convenience. Please sign and date the same and return the duplicate letter to the Division within the allotted timeframe. Thank you for your patience and cooperation in completing this permitting action. Please call me or Wayne Hedberg should you have questions or concerns with the conditions outlined in this letter. If desired, Dave Cline can discuss hydrological aspects of the review.

Sincerely,

Surge & Branto Lowell P. Braxton

Administrator Mineral Resources

Development and Reclamation Program

DWH: jvb Enclosures

cc: L. Dalton

C. Johnson

A. Klein

G. Vaninetti

K. May

D. Cline

W. Hedberg

J. Helfrich

8946R-58-61

Beaver Creek Coal Company hereby commits to comply with conditions within the specified timeframes as outlined in the body of this letter.

Signed by Kan W. King (Beaver Creek Coal Company)

Dated \* August 14, 1986

\* (This copy signed 9/2/86, Backdated to conform to fax "copy signature.)